

I claim:

1. A flat type light condensing device arranged in an optical path device of an image readout device, comprising:
a hollow frame having rectangular openings at two ends thereof; and
5 a plurality of lenses arranged in said frame.
2. The flat type light condensing device as claimed in claim 1, wherein said frame is integrally formed of plastic, metal or ceramic material, and said plurality of lenses are rectangular lenses locked in said frame.
3. The flat type light condensing device as claimed in claim 1, wherein said
10 lenses are circular, and said openings at two ends of said frame are a rectangular light incidence region and a rectangular light escape region, respectively.
4. The flat type light condensing device as claimed in claim 1, wherein said frame comprises a plurality of rectangular sub-frames made of metal or
15 ceramic, and lock portions are formed at two ends of each of said sub-frames to connect them together.
5. The flat type light condensing device as claimed in claim 4, wherein said lenses are rectangular ones made of plastic material, and are formed in corresponding sub-frames so that they won't be easily affected by
20 temperature to deform.
6. The flat type light condensing device as claimed in claim 1, wherein said lenses comprises a light incidence piece, a light condensing piece set and a light splitting piece, said light incidence piece has a size corresponding to the scan size of a scanner, said light escape piece has a size corresponding to
25 that of a charge coupled device, and said light condensing piece set is

composed of more than one lens.

7. The flat type light condensing device as claimed in claim 1, wherein a charge coupled device is assembled in said frame.

8. An optical path device mainly arranged in an optical equipment, said optical path device comprising:

a light source device providing the required light;

a reflecting device comprising at least a reflecting mirror, each said reflecting mirror reflecting said light at least once to accomplish a predetermined total track;

a light condensing device receiving light reflected by said reflecting device and condensing it for imaging, said light condensing device comprising a hollow frame whose two ends have rectangular openings and a plurality of lenses arranged in said frame; and

an OE converter receiving light collected and imaged by said light condensing device and converting it into an electric signal.

9. The optical path device as claimed in claim 8, wherein said OE converter is arranged in the distal end of said frame of said light condensing device.

10. The optical path device as claimed in claim 8, wherein said frame is integrally formed of plastic, metal or ceramic, and said plurality of lenses are rectangular lenses locked in said frame.

11. The optical path device as claimed in claim 8, wherein said frame comprises a plurality of rectangular sub-frames made of metal or ceramic, said lenses are rectangular ones made of plastic material, and are formed in corresponding sub-frames, and lock portions are formed at two ends of each of said sub-frames to connect them together so that they won't be easily

affected by temperature to deform.

12. The optical path device as claimed in claim 8, wherein said lenses are circular, and said openings at two ends of said frame are a rectangular light incidence region and a rectangular light escape region, respectively.

5 13. The optical path device as claimed in claim 8, wherein said lenses comprises a light incidence piece, a light condensing piece set and a light splitting piece, said light incidence piece has a size corresponding to the scan size of a scanner, said light escape piece has a size corresponding to that of a charge coupled device, and said light condensing piece set is aspheric.

10 14. The optical path device as claimed in claim 8, wherein the one end of said flat type light condensing device near said reflecting device is equal to or larger than the one end of said flat type light condensing device near said OE converter.

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